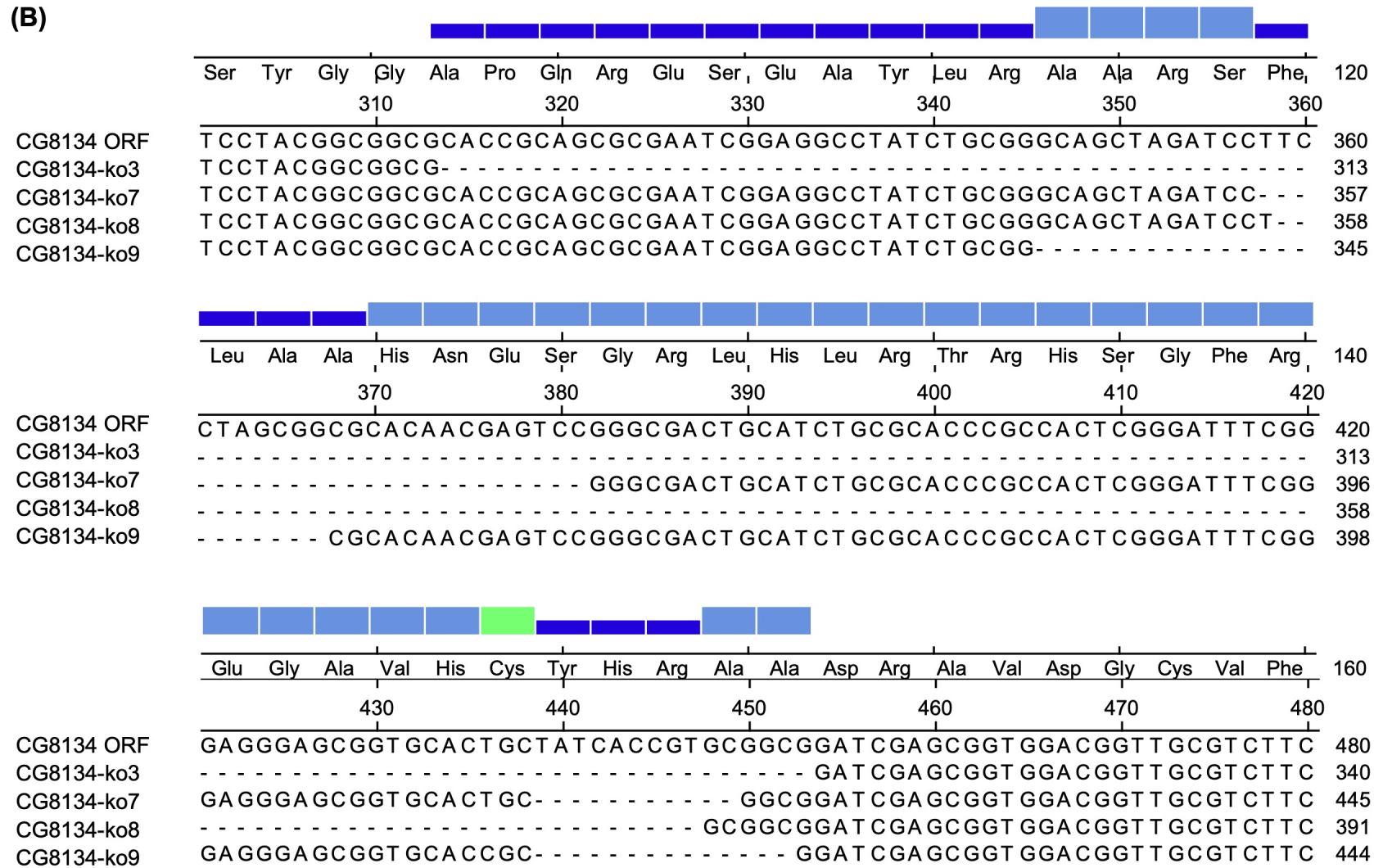


(A)

N-terminal	Fly	YLRASSKI KKFERAGFFKRF--APSWVDVQADFQFLAYSFEESGICQYAANCHI GYAKCE	100	CG8134.
	Hum	YRLVSNKLKK-----RFLRKPNVAEAGEEQFGQLGRELRAQECLPYAAVCCQLAVARCC	77	hHAP40
	Mou	YRQVSNKLKK-----RFLRKPNVAEAGEEQFAQLARELRAQECLPYAAVCCQLAVARCC	77	mHAP40(
	Frog	YRAVSNKLKK-----RFLRKPNVSEASEEQFGQLAKELKQQDCLQYAGFCNLANARCE	62	xHAP40(
	Fish	YRAVSNKLKK-----RFLRKPNVAEASEEQFGQLAKELKQQDCPQYAAFCNLANARCE	62	Dr HAP40

C-terminal	Fly	GARMYG LLLFR VEVLRLLLL VHLN PPAR RQS PAHI KLI EYY YNL AQF ESLPC SAD	277	CG8134.
	Hum	GAFS-----DVLVRCEVSRVLLLLLL LLQPPP A KLLPEHAQTL E-KYSWEAFDS-----HGQE	309	hHAP40
	Mou	GAFA-----DVLVRCEVSRVLLLLLL LLQPPP A KLLPEHAQTL E-KYSWEAFDG-----HGQD	319	mHAP40(
	Frog	GAFL-----DI I AKCEVSRVLLLL LLQPPP Q KLLPEHAQTL E-KYDWEAFDS-----HSHV	257	xHAP40(
	Fish	GAFM-----DI I AKCEI SRV LLL LLE P PPPQ K LLPEHAQTL E-RYAWESFDS-----HSQ-	256	Dr HAP40

(B)



(C)

Start point of deletion

end point of deletion

cgctttgcgcccagcgtggtcgatgtcaqgcggacttccagcqactggcctacagcttc
R F A P S V V D V Q A D F Q R L A Y S F
gaggagtgcggcatacagcagtatgcggccatgtgccacattggctatgccaagtgcqag
E E S G I Q Q Y A A M C H I G Y A K C E
tcctacggcggcgcgaccgcacgcgcgaatcggacggcctatctgcggcgaqctagatccttc
S Y G G A P Q R E S E A Y L R A A R S F
ctagcggcgcacaacgqactccgggqgactgcattgcgcacccqccactcgggatttcgg
L A A H N E S G R L H L R T R H S G F R
gaggagcqgtqcactqctatcaccgtgcggcqgatcqagcqgtggacqgttgcgtcttc
E G A V H C Y H R A A D R A V D G C V F
aaggcggccattctgcgcgqacttqaagcqactqcaqgcggcaqctggacagcacqcaq
K A A I L R E L K Q L Q R Q L D S T S S
tttgcctgcggccaccatcaqatccatqacactqqaatcaqgcggcaaacqagtgccag
F A S P T H Q I H D L E I S A E T S G Q
cqcgqgcqattttcqcaqtqcaactqcaqgcattacqacqacattqgqacaatqttacqag
R G D F R S A L Q H Y D D I V D N V Y E
cqacqgcqgtqctcqcatgtacqgtqaactattqcgqgcqcggtqagqgtqctqcgctqctg
R R G A R M Y G E L L R R V E V L R L L
ctcctagtcatttqaacctgcctccgcacqccagtcacccqccacatcaagctgatc
L L V H L N L P P A R Q S P A H I K L I
qaqtactactacaacctqqcgcqcaqttcqagtcqctccccctqttcqgcqgacqacqgtqqa
E Y Y Y N L A Q F E S L P C S A D D G G

(D)

end point of deletion 1

Start point of deletion 1

cgtttgcgcccacqcggtggtcqatgtgcaggcgacttccacqgactggcctacagcttc
R F A P S V V D V Q A D F Q R L A Y S F

qaggagtccggcatacacqcgatgtatqccggcatgtqccacattggctatqccaagtgcgag
E E S G I Q Q Y A A M C H I G Y A K C E

tcctacqgqcgqcgcaccqcaqcgqqaatcggaqggcctatctqccggcqagcttagatcc
S Y G G A P Q R E S E A Y L R A A R S F

ctaqqcqccacaacqgatccggqgcqactqcatctqccgaccqccactcqggatttcqg
L A A H N E S G R L H L R T R H S G F R

gaggqagcqgtgcactqctatcaccqtcggcqgatcqagcqgtggacggttgcgtttc
E G A V H G Y H R A A D R A V D G C V F

aqqcqgqccattctqccqaaqttaaqcqactqcaqctqcaqccqcaqctqgacacqacc
K A A I L R E L K Q L Q R Q L D S T S S

tttgcctcgccccaccatcaqatccatqacctqgaaatcaqccqaaacqagtgqcc
F A S P T H Q I H D L E I S A E T S G Q

cqcgqcgatttcqcaactqcaactqcaqcaqccatqgacattqgacaatqttacq
R G D F R S A L Q H Y D D I V D N V Y E

cqacqcggtqctcgcatgtacggtaactattqccggcgttqaggtqctqcgctq
R R G A R M Y G E L L R R V E V L R L L

ctccttagtccatttgaacctgcctccqacqccqactcaccqcccacatca
L L V H L N L P P A R Q S P A H I K L I

gagtactactacaacccggcgacqttcgagtcgctccctqttcgqggacqac
E Y Y Y N L A Q F E S L P C S A D D G G

Start point of deletion 2 end point of deletion 2

(E)

end point of deletion

Start point of deletion

cgcttgcgcccagcgtggtcgatgtgcaggcgacttccaaqcqactggcctacagcttc
 R F A P S V V D V Q A D F Q R L A Y S F
 qaggagtcqqqcatacaqcaqtatgcqqccatgtqccacattqqtatqccaagtqcgaaq
 E E S G I Q Q Y A A M C H I G Y A K C E
 tcctacqgqcgqgcgaccqcaqgcqqaatcggaggcctatctgcqggcaqtagatccttc
 S Y G G A P Q R R S E A Y L R A A R S F
 ctaqcgqcgacacaacqaqttccggggactqcatctgcqaccggccactcgggatttcgq
 L A A H N E S G R L H L R T R H S G F R
 qagggagcqgtqactqctatcaccgtgcggcgatcqagcqgtggacqgttgcgtcttc
 E G A V H C Y H R A A D R A V D G C V F
 aaaggcgccattctgcqcgqttqaagcqactqcgacggcaqctggacaqaccacqacg
 K A A I L R E L K Q L Q R Q L D S T S S
 tttgcctcgccccaccatcaqatccatgacctggaaatcaqcgccqaaacqagtgccag
 F A S P T H Q I H D L E I S A E T S G Q
 cgcggcgattttcgcaqgtgcactqcgacattacqacgacattgtggacaatgtttacqag
 R G D F R S A L Q H Y D D I V D N V Y E
 cgacqcggtgctcgcatgtacggtaactattgcggcgcttqaggtqctgcgtctqctg
 R R G A R M Y G E L L R R V E V L R L L
 ctcctagtcatttgaacctqcccccacqccagtcacccggccacatcaaqctqatc
 L L V H L N L P P A R Q S P A H I K L I
 qagttactactacaacctggcgcqagttcqagtcqctccctgttcggcggacqacqgtqga
 E Y Y Y N L A Q F E S L P C S A D D G G

(F)

end point of deletion 1

Start point of deletion 1

cgcttgcqcccagcqgtggtcqatgtqcaaggcgacttccagcqactggcctacaqcttc
R F A P S V V D V Q A D F Q R L A Y S F
qaqqqaqtcqggcatacaqcaqtatqccqccatgtqccacattqqctatqccaagtqcqag
E E S G I Q Q Y A A M C H I G Y A K C E
tcctacqgqcgqgcgaccqcaqgcqcaatcggaggcctatctqccqggcaqctagatccttc
S Y G G A P Q R E S E A Y L R A A R S F
ctaqqggcqcacaacqagaqtcgggqcaactqcatctqccqaccqccactcqggqatttcgg
L A A H N E S G R L H L R T R H S G F R
qagggqaqcqgtqcaqtqctatcaccqtcggcqgatcqagcqgtqgacqggttgcgtcttc
E G A V H C Y H R A A D R A V D G C V F
aaqqcqgcccattctcqccqagaqttqaaqcaqctqcaqccqcaqctqgacacqaccqcaq
K A A I L R E L K Q L Q R Q L D S T S S
tttgcttcgccccacccatcagatccatqaccqgaaatcaqccqaaacqagtgccag
F A S P T H Q I H D L E I S A E T S G Q
cqcgqcgatttcqgqagaqtqcaactqcaqgattacqacqacattqgacaaatqttacqag
R G D F R S A L Q H Y D D I V D N V Y E
cgacqccqgtqctcqgatqtaqccqgtqactatqccqccqgtqgactatqgacqccqaaacqagtgccag
R R G A R M Y G E L L R R V E V L R L L
ctccttagtccatttqaacctqcccccqcaqccqcaqtcaccqccacatcaqctqatc
L L V H L N L P P A R Q S P A H I K L I
gagtaactactacaactqgqcgcaqttcqgatcqctccctqttcqgqccgacqacqgtqga
E Y Y Y N L A Q F E S L P C S A D D G G
Start point of deletion 2, with a insertion of C

end point of deletion 2